

The Weather

A Science A-Z Earth Series

Word Count: 595




Science a-z

Visit www.sciencea-z.com

 **Science a-z**



Written by Kira Freed

www.sciencea-z.com

The Weather



Written by Kira Freed

www.sciencea-z.com

KEY ELEMENTS USED IN THIS BOOK

The Big Idea: Every student has personal experience with weather of some kind. This book helps students explore the many different aspects of weather, including temperature, wind, clouds, precipitation, and storms. We often select activities, clothing, and a place to live on the basis of weather. Understanding the weather can also prepare us to take precautions that will keep us safe in the event of severe weather.

Key words: blizzard, breeze, cloud, cold, cool, drift, fall, flood, hot, hurricane, lightning, rain, seasons, snow, spring, storm, summer, temperature, thunder, tornado, warm, weather, wind, winter

Key comprehension skill: Identify Facts

Other suitable comprehension skills: Compare and contrast; classify information; main idea and details; elements of a genre; interpret graphs, charts, and diagrams

Key reading strategy: Visualize

Other suitable reading strategies: Connect to prior knowledge; ask and answer questions; summarize; using a table of contents and headings; using a glossary and bold terms

Photo Credits:

Front cover: © iStockphoto.com/Judy Barranco; back cover, page 6 (bottom right): © iStockphoto.com/Noriko Cooper; title page, page 16: © iStockphoto.com/Kyu Oh; page 3: © iStockphoto.com/Holly Sisson; pages 4 (top), 6 (top right), 9 (right): © iStockphoto.com/Daniel Bendjy; page 4 (bottom): © iStockphoto.com/Greg Nicholas; page 4 (inset): © iStockphoto.com/Yenwen Lu; pages 5 (top), 9 (top left), 11, 14, 15 (bottom right): © Jupiterimages Corporation; page 5 (bottom): © iStockphoto.com/George M. Muresan; page 5 (inset): © iStockphoto.com/Bonnie Jacobs; page 6 (top left): © iStockphoto.com/Kris Hanke; page 6 (bottom left): © iStockphoto.com/Luciano Mortula; page 7 (bottom): © iStockphoto.com/Ronnie Comeau; page 8 (top): © Digital Vision/Getty Images; page 8 (bottom): © iStockphoto.com/Dave Raboin; page 9 (bottom left): © iStockphoto.com/Kristian Sekulic; page 10: © Pontus Edenberg/Lucky Oliver; page 12: courtesy of Don Becker/USGS; page 13 (top): © iStockphoto.com/Achim Holzem; page 13 (bottom): © iStockphoto.com/Ben Klaus; page 15 (top right): © iStockphoto.com/Mark Hayes; page 15 (left): © iStockphoto.com/Clint Spencer; page 17: © iStockphoto.com/Sean Locke

Illustration Credits:

Page 6 (thermometers): © iStockphoto.com/Alex Belomlinsky; page 7 (top): Cende Hill/© Learning A-Z

The Weather

© Learning A-Z

Written by Kira Freed

All rights reserved.

www.sciencea-z.com

Table of Contents

Introduction	4
Temperature	6
Clouds	8
Wind	10
Rain and Snow	12
Storms	14
Seasons	16
Glossary	18



Introduction

Weather is all around us. The weather is always changing. It is different from place to place. It is different at different times of the year.



Do you ever wonder what makes weather? Do you know many words to describe weather? Let's learn about the things that make weather.



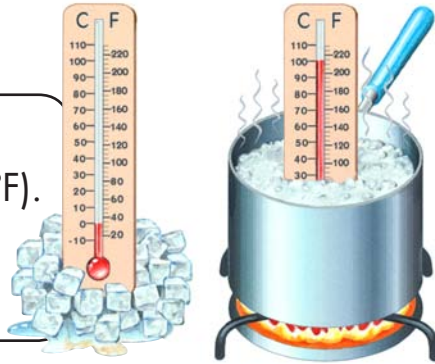
Temperature

Temperature is how hot or cold it is. On some days, the temperature is high, and it is very hot. Some days are just warm.

On some days, the temperature is low, and it is cool. Other days are very cold.



Water boils at
100° Celsius (212°F).
Water freezes at
0° Celsius (32°F).



The temperature goes up and down.
It is usually higher during the day.
Energy from the Sun warms the
ground. The ground warms the air
above it. At night, the temperature
is usually lower. The ground gets
cooler when the Sun goes down. The
changing air changes the weather.



The city is warm during the day and cooler at night.



These clouds mean the weather is nice.



These clouds bring bad storms.

Clouds

Clouds come in many shapes and sizes. Some clouds are thick, and others are thin. Some clouds are white, and others are gray. Some clouds mean the weather is nice. Some big or dark clouds mean the weather is changing.

There are no clouds in the sky on a clear day. On other days, clouds cover the sky. That's a cloudy day. On some days, you can see clouds and patches of blue sky. We say the weather is partly cloudy.

Clouds are made of water. There are always tiny bits of water in the air. The more water there is in the air, the more clouds there are.



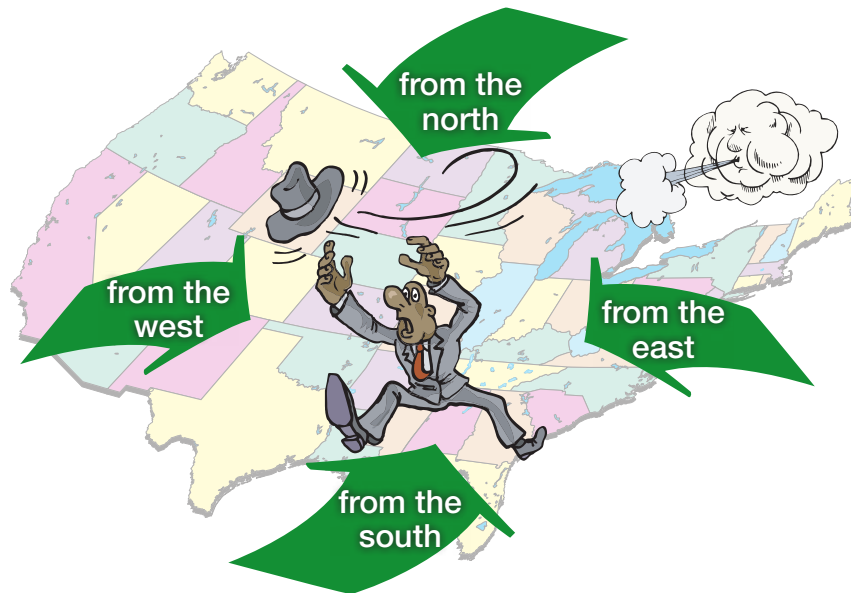
Wind blows the sails to push the boat.

Wind

Wind is moving air. Moving air makes weather. Wind is always changing. For example, it changes speed. Sometimes it is a gentle breeze, and sometimes it blows very fast. When the wind changes, the weather changes, too.

Wind blows from different directions. It might blow from the north or south. In Europe, Asia, and North America, wind from the north often brings cooler weather.

Wind might blow from the east or west. It can change directions quickly. It can even swirl around. Wind that blows from the ocean often brings more clouds and moisture.



Water covers the land during a flood.

Rain and Snow

Weather can be rainy or snowy.

Rain and **snow** fall from clouds when the clouds hold a lot of water. Rain falls when the air around clouds is warm. Sometimes a huge amount of rain falls. Too much rain can fill up rivers and cause floods.

Snow falls when the air around clouds is cold. Snow stays on the ground if the ground is also very cold, but the snow melts when the ground is warm. Strong wind can blow snow into huge piles called drifts. Snowy weather is cold.



Deep snow must be removed from the street.



This street is buried in snow.



This storm is a thunderstorm.

Storms

Storms are a type of weather. Storms can happen when it is hot or cold. Many storms bring strong winds. Some storms bring a large amount of rain. Some storms bring lightning and thunder.

Sometimes a large amount of snow falls, and the wind blows hard. This storm is a blizzard.

Sometimes a strong wind spins very hard over land. This storm is a tornado.

Sometimes a huge wind spins very hard over water. This storm is a hurricane.



A tornado can do a large amount of damage in a short time.



It is very hard to see during a blizzard.



A hurricane is a huge storm over water.



Leaves change colors before they drop to the ground.

Seasons

The weather changes with the **seasons**. There are four seasons: spring, summer, fall, and winter. In fall, some trees lose their leaves, and the weather gets cooler. Days get shorter in fall.

In winter, it is cold, and days are very short. Some trees have no leaves.

In spring, the weather gets warmer,
and days get longer. Flowers bloom.

In summer, the weather is hotter, and
days are very long. Trees have leaves.

What season is it now where you live?
How do you know?



Planting flowers in the spring

Glossary

clouds

groups of drops of water
or pieces of ice in the air
(p. 8)

rain

liquid water that falls
from clouds to the earth
(p. 12)

seasons

parts of the year that last
three months; winter,
spring, summer, and fall
(p. 16)

snow

frozen water that falls
from clouds in flakes
(p. 12)

storms

violent weather with
strong winds (p. 14)

temperature

the measure of how hot
or cold something is (p. 6)

weather

a description of the
temperature, clouds,
rain, wind, and other
conditions in the air (p. 4)

wind

moving air (p. 10)